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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,465

12/20/2005

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

DUDEK JR, EDWARD J

ART UNIT

PAPER NUMBER

2186

MAIL DATE

DELIVERY MODE

05/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,465	Applicant(s) BLACQUIERE ET AL.	
	Examiner Edward J. Dudek	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to application #10/561465 filed on 20 December 2005.

Claims 1-10 are pending and have been presented for examination.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 76 and 77.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "75" has been used to designate both steps of "END" and "REALLOCATE".

The drawings are objected to because the steps in the flow chart of figure 8 are not labeled.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The limitation of computer program product can be reasonably interpreted to be software, *per se*. Software *per se* is merely functional descriptive material, and is non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 1 and 10, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claims 2-9 and 11 are also defective as they depend from claims 1 and 10 respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sims (**U.S. Patent #7,058,852**) in view of Noble (**U.S. Patent Application Publication #2001/0047451**).

As per claim 1: Sims discloses device for recording information in blocks having logical addresses on a record carrier, which device comprises recording means (22) for recording marks in a track on the record carrier representing the information (**see figure 3, element 351**), control means (20) for controlling the recording by locating each block at a physical address in the track (**see figure 3, element 350 and column 17 line 62 thru column 18 line 13**), physical addresses in first parts of the track being assigned to at least one user data area and physical addresses in second parts of the track being assigned to defect management areas (**see column 13, lines 47-62**), the control means comprising addressing means (31) for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information (**see column 17 line 62 thru column 18 line 13**), defect management means (32) for

detecting defects and maintaining the defect management information in the defect management areas **(see column 9, lines 7-12)**, the defect management information at least including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area **(see column 11, lines 28-33)**, recording means (33) for recording a series of blocks having a continuous logical address range in a corresponding allocated physical address range **(see column 13, lines 20-30)**, in particular digitally encoded video. Sims fails to disclose contiguous recording and for detecting if the allocated physical address range is interrupted by a subset of physical addresses assigned to a defect management area, for reallocating the subset of physical addresses to the user data area, and for contiguously recording the series of blocks extending over the subset of physical addresses. Noble discloses a disk drive de-fragmentation method that organizes the physical block addresses into a contiguous range and storing fragmented data into this contiguous area **(see abstract)**. Having files stored contiguously on the storage medium results in better performance **(see [0010])**. The system determines if any of the files on the disk drive are interrupted, thereby creating a fragmented file **(see [0040])**. Data stored in physical sectors is swapped out to create a contiguous range of physical sectors to hold the fragmented file **(see [0043])**. When the contiguous range of physical address is available, the fragmented files are contiguously recorded in this newly created address range **(see [0044])**. It would have been obvious to a person having ordinary skill in the art to which said subject matter pertains to have modified the system disclosed by Sims, to have

modified the sector mapping in a way to create a contiguous range of physical blocks in which to store a contiguous file, as disclosed by Noble, in order to increase the performance of the storage device, as taught by Noble.

As per claim 2: wherein the contiguous recording means (33) are for reallocating said interrupting defect management area to different physical addresses and updating the defect management information correspondingly **(see Noble [0043], the data is moved to a different physical address to create the contiguous physical address range to store the data).**

As per claim 3: wherein the contiguous recording means (33) are for detecting blocks previously remapped to the subset of physical addresses, and, in the event of detecting previously remapped blocks, for remapping the previously remapped blocks **(see Noble [0043]).**

As per claim 4: wherein the device comprises a memory (34) and the contiguous recording means (33) are for, reading the previously remapped blocks, writing them on a free area of the disc and continue recording the series of blocks extending over the subset **(see Noble [0042]).**

As per claim 5: the contiguous recording means (33) are for at least partly removing said interrupting defect management area from the defect management areas **(see Noble [0043]).**

As per claim 6: the contiguous recording means (33) are for adapting defect management status information indicating that the interrupting defect management area is unusable or adapting pointer information or size information indicating the location or

size of the interrupting defect management area **(it is inherent that the status and location information would be updated when the de-fragmentation routine moves the data in the sectors to other locations when attempting to create a contiguous range of physical addresses to hold data).**

As per claim 7: the contiguous recording means (33) are for detecting a defect physical address interrupting the allocated physical address range, and creating a defect management area extending over the defect by reassigning the defect physical address to the defect management areas **(see Sims column 16, lines 55-67).**

As per claim 8: the contiguous recording means (33) are for contiguously recording a previously recorded series of blocks, in particular in a background process **(see Noble [0011] and [0040]).**

As per claims 9 and 10: Sims discloses method of recording information in blocks having logical addresses located at physical addresses in a track on a record carrier **(see column 7, lines 30-35)**, the logical addresses corresponding to the physical addresses in dependence of defect management information **(see column 17 line 62 thru column 18 line 13)**, physical addresses in first parts of the track being assigned to at least one user data area and physical addresses in second parts of the track being assigned to defect management areas, defects being detected and the defect management information being maintained in the defect management areas **(see column 13, lines 47-62)**, and the defect management information at least including remapping information indicative for translating a logical address initially mapped to a

physical address exhibiting a defect to an alternate physical address in a defect management area (**see column 11, lines 28-33**), a series of blocks having a continuous logical address range, in particular digitally encoded video, corresponding to an allocated physical address range (**see column 13, lines 20-30**). Sims fails to disclose the method comprising detecting if the allocated physical address range is interrupted by a subset of physical addresses assigned to a defect management area, reallocating the subset of physical addresses to the user data area, and contiguously recording the series of blocks extending over the subset of physical addresses. Noble discloses a disk drive de-fragmentation method that organizes the physical block addresses into a contiguous range and storing fragmented data into this contiguous area (**see abstract**). Having files stored contiguously on the storage medium results in better performance (**see [0010]**). The system determines if any of the files on the disk drive are interrupted, thereby creating a fragmented file (**see [0040]**). Data stored in physical sectors is swapped out to create a contiguous range of physical sectors to hold the fragmented file (**see [0043]**). When the contiguous range of physical address is available, the fragmented files are contiguously recorded in this newly created address range (**see [0044]**). It would have been obvious to a person having ordinary skill in the art to which said subject matter pertains to have modified the system disclosed by Sims, to have modified the sector mapping in a way to create a contiguous range of physical blocks in which to store a contiguous file, as disclosed by Noble, in order to increase the performance of the storage device, as taught by Noble.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward J. Dudek whose telephone number is 571-270-1030. The examiner can normally be reached on Mon thru Thur 7:30-5:00pm Sec. Fri 7:30-4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matt Kim/
Supervisory Patent Examiner, Art
Unit 2186

/E. J. D./
Examiner, Art Unit 2186
May 19, 2008